

We claim:

1. A method of transferring data over a network from a first portable electronic device to a second portable electronic device comprising the steps of:

5 establishing a voice-call path between first and second telephony devices by initiating a voice-call connection from one of said first and second telephony devices to the other of said first and second telephony devices, the first and second telephony devices having first and second network portals, respectively;

10 initiating a data exchange from one of said first and second portable electronic devices to the other of said first and second portable electronic devices, each of said first and second portable electronic devices including an infrared interface;

sending the data from said first portable electronic device to said first network portal via infrared communication;

15 sending the data from said first network portal of the first telephony device to the second network portal of the second telephony device via said network; and

sending the data from said second network portal to said other of said first and second portable electronic devices via infrared communication.

20 2. The method of claim 1, wherein said voice communication path is provided over a TCP socket using TCP/IP.

3. The method of claim 1, wherein said step of initiating said data exchange includes IrDA handshaking between said one of said portable electronic devices and said first network portal, and said other of said portable electronic devices and said 25 second network portal for determining IrDA capabilities and establishing primary/secondary IrDA roles therebetween.

4. The method of claim 1, further comprising the step of buffering said data in said first network portal before sending said data to said second network portal.

5. The method of claim 1, wherein said data is streamed to the other one of said portable electronic devices from said first network portal via said second network portal.

5 6. The method of claim 5, wherein said first network portal delays the sending of data from said one of said portable electronic devices by using empty IrDA retransmission frames pending receipt of an acknowledgement from said second network portal that said other one of said portable electronic devices is ready to receive said data, whereupon each subsequent IrDA frame of said data sent by said one of said
10 portable electronic devices is transmitted immediately to said second network portal and beamed therefrom to said other one of said portable electronic devices.

7. The method of claim 1, wherein said step of sending the data from said first network portal to said second network portal further includes transmitting said data in
15 its entirety from said first network portal to a mediator which in response to receipt of the data relays said data to said second network portal.

8. A system for transferring data over a network from a first portable electronic device to a second portable electronic device comprising:

20 first and second telephony devices for initiating a voice-call connection from one of said first and second telephony devices to the other of said first and second telephony devices, the first and second telephony devices having first and second network portals, respectively,

the first network portal of the first telephony device having an infrared
25 interface for receiving said data beamed from said first portable electronic device via infrared communication after said voice-call is established, and in response transmitting said data over the network,

the second network portal of the second telephony device for receiving the data from said network, and beaming said data to said second portable electronic device via
30 a further infrared interface, whereby said data is transferred from said first to said second portable electronic device through said telephony devices, after said voice call connection is established.

9. The system of claim 8, wherein said voice call is provided over a TCP socket using TCP/IP.

5 10. The system of claim 9, wherein said network includes at least one Integrated Communications Platform connected between said IP telephony devices.

11. The system of claim 9, wherein each of said first and second network portals supports IrDA protocol for receiving dialing commands from respective ones of said
10 first and second portable electronic device using the OBEX (Object Exchange) application layer at the top of the IrDA protocol stack.

12. The system of claim 8, wherein said first network portal includes a cache for buffering the data prior to transmission over said network.

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13. The system of claim 10, wherein said data is streamed to said second portable electronic device from said first network portal via said second network portal.

14. The system of claim 12, wherein said first network portal includes a cache for
20 buffering said data beamed from said first portable electronic device using empty IrDA retransmission frames pending receipt of an acknowledgement from said second network portal that said second portable electronic device is ready to receive said data, whereupon each IrDA frame of said data sent by said first portable electronic device is transmitted immediately to said second network portal and beamed to said second
25 portable electronic device.

15. The system of claim 8, further including a mediator server for receiving said data in its entirety from said first network portal and in response relaying said data to said second network portal.

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